REMARKS

This application has been carefully reviewed in view of the above-referenced Office Action, and reconsideration is requested in view of the following remarks.

Request For Interview

Upon review of the current Office Action and the cited references, the undersigned is unable to find disclosure asserted to be in certain of the cited references. This will be borne out in the arguments presented below. In view of the failure of the undersigned to find the asserted teachings in the cited art, it is again believed possible that the Examiner may be interpreting language of the cited art or the claims in a manner that is not comprehended by the undersigned. Accordingly, after reviewing the present response, if the Examiner wishes to persist with the present rejections or the present art, the courtesy of an interview is requested so that the undersigned can understand the Examiner's reasoning and can more appropriately address the rejections. The undersigned can be reached at the telephone number appearing at the end of this response.

Regarding the Rejections under 35 U.S.C. §101

The undersigned disagrees with the interpretation of the rejected claims as containing no practical application. Encryption and decryption processes in and of themselves have practical applications that are well known and inherently have practical applicability in obscuring or unobscuring content that is to be protected. By way of example, some of the present claims have applicability in the field of transmission or storage or decryption of television signals. While the undersigned disputes the present rejection and reserves the right to present the rejected claims in a continuing application, Applicants wish to expedite the issuance of the present application. Accordingly, rejected claims 1 and 16 have been amended to have a scope which more explicitly calls out a practical application. In these cases, the claims were amended by inserting features of dependent claims 2 and 17 respectively (which have not been rejected on the basis of 35 U.S.C. §101). Dependent claims 2 and 17 were amended to call out further features. Hence, such

amendments presumably render the claims statutory without regard for the correctness of the present rejection, which Applicants expressly disagree with.

Claim 31 is believed clearly statutory as presented, since it calls not only for creating, but also for distributing the partially multiple encrypted television signal. This is clearly a practical application of the encryption process. Reconsideration is respectfully requested.

Claims 62, 89, 102, 148, 150, 153 and 154 are also believed clearly statutory as presented (at least since decryption and decoding of a television signal inherently makes the television signal useful in a television decoding application, and since a television set top box or receiver thus has a practical application). But, in the spirit of cooperation, these claims have been amended to call for the decoding to permit display of content on a display device (to paraphrase without intent to impose further limitations) – clearly a practical application. Reconsideration is respectfully requested.

Brief Review of the Technology Being Claimed

The following concise explanation of the claimed technology is presented to assist the Examiner in refreshing his understanding of the present invention and the language of the claims, and is not intended to limit the claims in any manner.

To clarify the process of Applicant's invention as claimed in certain of the claims (e.g., encryption method claim 1), consider the following stream of clear unencrypted packets representing a digital television signal (note that this represents a single instance of a television signal):

<div align="center">C1   C2   C3   C4   C5   C6</div>

Let us presume that packet C3 has a particular attribute that it is desirable to encrypt (i.e., the packets are examined and packet C3 is identified per the examining element of claim 1 for example). Packet C3 is then duplicated to produce two copies so that you have:

<div align="center">C3   C3   (along with C1, C2, C4, C5 and C6)</div>

(per the duplicating element of claim 1 for example). Now, per the two encryption elements of claim 1 for example, the duplicate packets are encrypted (say using methods A and B). As a result, duplicate packets C3 and C3 become:

EAC3   EBC3

That is, two packets with the same content encrypted by two different methods A and B. Finally, these two packets are inserted into the original television signal per the replacing element of claim 1 to have:

            C1   C2   EAC3 EBC3 C4   C5

Hence, we started with five packets, and end up with six in this example with the two encrypted packets containing redundant information. But, note that the resulting signal can be decoded for playback if either <u>one</u> of EAC3 or EBC3 can be decrypted by the receiver. This renders the signal compatible with multiple receivers (capable of decryption under multiple decryption systems) without doubling the required bandwidth and transmitting two fully encrypted copies. The cost penalty in this simple example is only a 20% increase in bandwidth needed to carry the multiple encrypted television signal, while enabling decryption by multiple types of receivers.

Regarding the Javed Reference

        The undersigned has studied the Javed reference in detail and notes with particularity that the Javed reference is used as a primary reference for all anticipation and obviousness rejections in the present application. The undersigned finds nothing of significance in Javed that singly or in combination with other references renders any claim of the present application either anticipated or obviated (unless the examiner is taking a reading of the claim language in a manner that is not understood by the undersigned, in which case, clarification is above requested via a telephone interview, and final rejection is believed clearly improper).

        In particular, the Office Action repeatedly cites paragraphs 0066-0068 for disclosure of duplication of packets identified as a particular packet type. It is noted that paragraphs 0066-0068 discuss the data formatted in packets as illustrated in Figs. 7 and 8. Fig. 7 illustrates a header 700 attached to files on a VPOP network (see paragraph 0065). Fig. 8 illustrates a <u>header attached to records in a VPOP database</u> (see paragraph 0067). Paragraphs 0066-0068 describe the various fields in these headers. Applicant is at a loss to find the relevance of this disclosure to the claims, and in particular, fails to find any teaching or suggestion of "*examining unencrypted packets of data in a digital television signal to identify a packet type and*

duplication of those packets of a particular type" and "*duplicating packets identified as being of the packet type to create first and second duplicate packets*", to use the language of claim 1 as an illustrative example without intent of imposing limitations. While it is noted that in Javed, multiple copies of a video may be downloaded, and the number of copies are tracked in these headers, the claim elements quoted above are missing from Javed, and more particularly, are without question clearly missing from the cited paragraphs. It simply is not disclosed.

The Office Action further cites paragraph 0090 in support of multiple encryption of the first and second duplicate packets. However, upon inspection of Javed, the undersigned again finds no such teaching or suggestion. Paragraph 90 of Javed states that the video file is divided into segments and that each segment is individually encrypted using a different encryption and decryption key pair for each segment. In this manner, if one of the key pairs is compromised, only a single segment of the video is compromised. However, in the claims at issue, again using claim 1 as an example, packets of a particular type are first duplicated and then each duplicate copy is encrypted using first and a second encryption method. Note that this results in at least two duplicate redundant copies of the one packet of the particular packet type. While there may be multiple copies of the video present in Javed, and while there may be multiple copies of segments of the video encrypted by different means in Javed, there is no disclosure that meets the claim features. In Javed, the above stream of packets would be encrypted as:

EVC1 EWC2 EXC3 EYC4 EZC5

where EV, EW, EX, EY and EZ represent encryption with five different encryption decryption key pairs.

The Office Action also cites paragraph 0091 against the present claims for disclosure of replacement of the unencrypted packet type with multiple copies of the encrypted packet type. Javed, however, only discloses that each segment is decoded with its respective decryption key. Again using claim 1 as an example, once the packet is encrypted with first and second encryption methods, the single unencrypted digital video packet is replaced by two encrypted packets having the same content, but encrypted using different encryption methods. Thus, in claim 1 (for example) the selected packet is duplicated, multiple encrypted and multiple copies are inserted within the television signal in place of the original single unencrypted packet (thus portions of

the television signal are redundant and encrypted using multiple encryption methods). In Javed, no such process is described, contemplated or hinted at. The independent claims of Javed are further revealing as to his failure to contemplate the presently claimed invention, in that they all call for "*encrypting each of said plurality of segments with a selected one of said plurality of encryption keys*" (emphasis added). This claim language makes the meaning of paragraphs 0066-0068, 0090-0091 abundantly clear and places the meaning of Javed in stark contrast to the language of Applicants' claims.

In summary, Javed falls far short of disclosing that which the Office Action asserts is disclosed. However, should the Examiner wish to further explain his interpretation of Javed so that an appropriate response can be made (or an amendment can be negotiated), his attention is directed to the above request for interview.

Regarding the Rejections under 35 U.S.C. §102

Claims 1-6,9-23, 26-36, 51, 54-59, 62-70, 73-79, 82-94, 97-108, 111-119, 121, 122, 125-135, 139-155, 157-162, 165-170 and 173-178 were rejected as anticipated by the Javed reference of record.

As noted above, Javed fails to disclose, teach or suggest that which the Office Action asserts. These assertions are made repeatedly for all rejections and are flawed as noted above. Thus, for at least the above reasons, Javed fails to anticipate any of the above claims since all claims call for some form of multiple partial encryption as described above (or decryption of signals having characteristics lacking in Javed). In order to establish anticipation, each claim element must be present in Javed and must be arranged as claimed. This is not the case. Applicants respectfully traverse the rejection and request reconsideration.

In view of the above dramatic failure of Javed to meet the language of the claims, the undersigned submits that it is counter-productive to comment further, in the absence of clarification as to the Examiner's position that resolves the major fundamental differences between the claims and Javed as understood by Applicants. In view of this, the undersigned submits that the above claims are patentable at least for the reasons noted above, and reserve the

right to comment further on the rejections if needed in light of a further explanation of the Examiner's application of Javed to the claims.

Regarding the Rejections under 35 U.S.C. §103

Claims 7, 24, 37, 46, 60, 71, 80, 95, 109, 123, 163 and 171 were rejected based upon the combination of Javed as applied above in view of Harumoto of record. In view of the above errors noted in interpretation of Javed and the failure of Javed to disclose that which is asserted to be disclosed, the combination proposed with Harumoto clearly falls short or establishing *prima facie* obviousness <u>at least</u> for failure to fully and properly consider all limitations of the claims.

Claims 8, 25, 38, 47, 61, 72, 81, 96, 110, 124, 164 and 172 were rejected as obvious in view of Javed in view of Darr of record. Darr was discussed in the prior response, and those discussions are applicable. Additionally, in view of the above errors noted in interpretation of Javed and the failure of Javed to disclose that which is asserted to be disclosed, the combination proposed with Darr clearly falls short or establishing *prima facie* obviousness <u>at least</u> for failure to fully and properly consider all limitations of the claims.

Claims 39 and 120 were rejected as obvious in view of Javed in view of Monroe of record. Again, in view of the above errors noted in interpretation of Javed and the failure of Javed to disclose that which is asserted to be disclosed, the combination proposed with Monroe falls short or establishing *prima facie* obviousness <u>at least</u> for failure to fully and properly consider all limitations of the claims.

Claims 42, 52, 140 and 156 were rejected as obvious in view of Javed in view of Misu of record. Again, in view of the above errors noted in interpretation of Javed and the failure of Javed to disclose that which is asserted to be disclosed, the combination proposed with Misu falls short or establishing *prima facie* obviousness <u>at least</u> for failure to fully and properly consider all limitations of the claims.

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Concluding Remarks

The cited Javed reference again appears to be quite remote from the claimed invention so as to make detailed discussion of the distinctions on a claim by claim basis pointless. However, the undersigned again allows that the Examiner may be taking an interpretation of the claims or Javed that is not understood or clear from the Office Action. Hence, the undersigned again reiterates that should the Examiner feel that the undersigned has missed the point of the rejections or misunderstood Javed, the courtesy of an interview would be appreciated.

The undersigned explicitly notes that many other distinctions exist between the cited art and the claims. However, in view of the clear distinctions pointed out above and the apparent vast differences between the art and the claims, further discussion is believed to be unnecessary at this time, since the deficiencies in Javed adequately address all of the rejections. Failure to address each point raised in the Office Action should accordingly not be viewed as accession to the Examiner's position or an admission of any sort. It should only be interpreted as an indication of the undersigned's belief that the art cited is quite remote such that further discussion is unnecessary in view of the failures of the teachings of Javed.

No amendment made herein was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim unless an argument has been made herein that such amendment has been made to distinguish over a particular reference or combination of references. Applicants reserve the right to present claims of scope similar to the unamended claims in a continuing application.

In view of this communication, all claims are believed to be in clear condition for allowance and such is respectfully requested at an early date. If further matters remain to be resolved, the undersigned respectfully requests the courtesy of an interview. The undersigned can be reached at the telephone number below.

Respectfully submitted,

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